

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
19 May 2005 (19.05.2005)

PCT

(10) International Publication Number
WO 2005/045073 A1

(51) International Patent Classification⁷: **C12Q 1/68**
(21) International Application Number:
PCT/KR2003/002407

(74) Agent: SESHIN PATENT & LAW FIRM; 8th Fl., KFSB
Bldg., 16-2 Yeodo-dong, Yeongdeungpo-gu, 150-010
Seoul (KR).

(22) International Filing Date:
10 November 2003 (10.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): SEE-
GENE, INC. [KR/KR]; 2th Fl., Myungji Bldg., 142-21,
Samsung-dong, Kangnam-gu, 135-090 Seoul (KR).

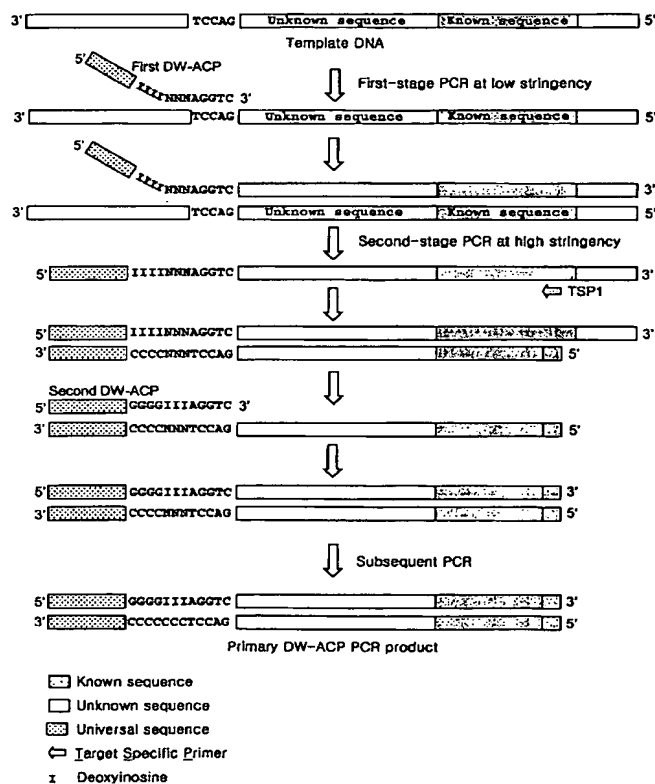
(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventor; and
(75) Inventor/Applicant (for US only): CHUN, Jong-Yoon
[KR/KR]; 319-1301 Olympic Seonsugijachon Apartment,
89, Bangi-dong, Songpa-gu, 138-050 Seoul (KR).

[Continued on next page]

(54) Title: METHOD FOR AMPLIFYING UNKNOWN DNA SEQUENCE ADJACENT TO KNOWN SEQUENCE



(57) Abstract: The present invention relates to a method for amplifying an unknown nucleotide sequence adjacent to a known nucleotide sequence, which comprises the step of (a) performing a primary amplification of said unknown nucleotide sequence using a DNA walking annealing control primer (DW-ACP) and a first target-specific primer, in which said step (a) comprises: (a-1) performing a first-stage amplification of said unknown nucleotide sequence at a first annealing temperature, comprising at least one cycle of primer annealing, primer extending and denaturing using a first degenerate DW-ACP containing a degenerate random nucleotide sequence to hybridize with said unknown nucleotide sequence and a hybridizing nucleotide sequence substantially complementary to a site on said unknown nucleotide sequence; and (a-2) performing a second-stage amplification at a second annealing temperature to render said first degenerate DW-ACP not to function as a primer.

WO 2005/045073 A1



Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.